City of Lawrence TRAFFIC ENGINEERING DIVISION

MEMORANDUM

TO: Charles Soules, Director of Public Works

Shoeb Uddin, City Engineer

FROM: David Woosley, Transportation/Traffic Engineer

DATE: 2 October 2008

SUBJECT: Flashing Yellow Arrow (FYA)

The Traffic Engineering Division recently implemented a new traffic signal display for "permissive" left-turn movements. It is referred to as a Flashing Yellow Arrow (FYA) and has been installed on Louisiana Street at 19th Street for northbound and southbound traffic.

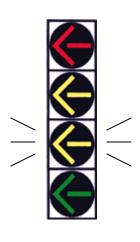
For many years, engineers have had concerns that drivers turning left on a permissive circular green signal indication might inadvertently mistake that indication as implying the left-turn has the right of way over opposing traffic. A variety of different indications and signal face arrangements for permissive left-turns have been tried over the years. However, in the mid-1990s, a National Cooperative Highway Research Program Project was initiated to evaluate traffic signal displays for protected/permissive left-turn control.

The results of the research found the FYA to be well-understood by drivers and that it had significantly more correct responses and a lower fail-critical rate than the steady circular green permissive left-turn indication. In addition, the FYA eliminates the "yellow trap" that can occur in certain situations, provides more flexibility for left-turn control and actually gives more opportunity to make left-turns.

On March 20, 2006, the Federal Highway Administration issued a memorandum for Interim Approval for Optional Use of Flashing Yellow Arrow for Permissive Left Turns; and on December 6, 2007, the City of Lawrence received permission from the Federal Highway Administration to implement FYA displays.

Future installations planned in Lawrence include 6th Street at Vermont Street and 31st Street at Home Depot/Post Office, as well as at all new traffic signals with permissive left-turn phases.

Here is what the new displays look like:



Steady red arrow = Stop. No left turns allowed.

Steady yellow arrow = Prepare to stop.

Flashing yellow arrow = Left turns allowed, but must yield to oncoming traffic.

Steady green arrow = Left turns allowed.

If additional information is needed, please let me know.